

Understanding an Audit Report

Commonwealth of Massachusetts
Public Employee Retirement Administration Commission



Commonwealth of Massachusetts

Public Employee Retirement Administration Commission

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Understanding an Audit Report

*Report of the Public Employee Retirement Administration Commission on the Examination of the Quabbin
Contributory Retirement System for the Three Year Period, January 1, 1997 - December 31, 1999*

Timothy M. McDaid, *PERAC Chief Auditor*

Chief Auditor's Letter

The purpose of this document is to enable readers to more fully understand the Public Employee Retirement Administration Commission's (PERAC) audit examinations.

Our sample audit report is based on the "Quabbin Retirement System." Although the Quabbin Retirement System is fictional, our objective is to use it to present a typical audit report for your review. Each left-facing page contains a "Key Points & Concepts" section explaining key features of the audit report page that it faces.

Once PERAC's field-auditors have completed an audit of a retirement system, they submit their draft report to me for my review. Then, several other PERAC Department Administrators also review the draft, and pursuant to their recommendations, further explanations or analysis may be added.

The completed draft audit report is sent to the retirement board for their review. A letter, from Joseph E. Connarton, PERAC Executive Director, is incorporated into each draft audit report. An example of a typical letter is found on page I.

The Retirement Board should review the draft audit report. If, for any reason, the Retirement Board disagrees with PERAC's findings and recommendations, they have an opportunity to write to me about them. PERAC will work with the retirement board to resolve any differences. At the Retirement Board's request, their response to our findings and recommendations will become part of the final audit report.

If you have any questions about this sample audit report or if you have any questions about the operation of your retirement system in general, please do not hesitate to contact me.



Timothy M. McDaid
PERAC Chief Auditor

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LETTER FROM THE EXECUTIVE DIRECTOR

July 29, 2002

The Public Employee Retirement Administration Commission has completed an examination of the Quabbin Retirement System pursuant to G.L. c. 32, § 21. The examination covered the period from January 1, 1997 to December 31, 1999. This audit was conducted in accordance with the accounting and management standards established by the Public Employee Retirement Administration Commission in regulation 840 CMR 25.00. Additionally, all supplementary regulations approved by PERAC and on file at PERAC are listed in this report.

In our opinion, the financial records and management functions are being performed in conformity with the standards established by the Public Employee Retirement Administration Commission with the exception of those noted in the finding presented in this report.

We commend the Quabbin Retirement Board for the operation of the system.

In closing, I acknowledge the work of examiners David Pickering, Harry Chadwick, and Robert Madison who conducted this examination and express appreciation to the Board of Retirement and staff for their courtesy and cooperation.

Sincerely,


Joseph E. Connarton
Executive Director

Key Points & Concepts

If PERAC auditors find an issue(s) that requires correction or further explanation, they will write about it in their Explanation of Findings and Recommendations. The auditor's examination will include, but not be limited to the following categories. See the *Internal Control Questionnaire* for more detail about each of these categories:

- a. General Administration or Operations
- b. Board Duties
- c. Contracts
- d. Information Technology
- e. Fiscal
- f. Transfers
- g. Cash
- h. Receipts
- i. Disbursements
- j. Investments
- k. Membership
- l. Disability Procedures

In the course of auditing Quabbin, PERAC auditors found a membership related issue in the members' files or database.

1

Finding: The auditors found that the Payroll Department was not reviewing individuals who had received wage increases to determine if the additional 2% should be withheld from their regular compensation.

2

Recommendation: PERAC recommended that Quabbin's payroll system be modified to withhold an additional 2% whenever regular compensation exceeds \$576.92 per week.

3

Response: The Quabbin Retirement Board responded to the PERAC Findings & Recommendations by agreeing that this was a valid issue and asked Quabbin's Payroll Department to remedy the situation. (If the Retirement Board had disagreed about the issue, they could have responded by explaining why they disagree.)

4

Final Determination: In order to ensure that appropriate action is taken, PERAC auditors typically conduct a follow-up review in six months after the audit report is released. The board needs to demonstrate that the situation has been rectified. In most cases, PERAC auditors conduct such a follow-up review informally.

EXPLANATION OF FINDINGS AND RECOMMENDATIONS

FOR THE THREE YEAR PERIOD ENDING DECEMBER 31, 1999

Membership

- 1** *Additional 2% Withholding:* Per PERAC regulation 840 CMR 8.00 an additional two percent shall be withheld from all regular compensation in excess of \$576.92 per week. Several members with a weekly salary greater than \$576.92 were not having the additional 2% withheld. The Payroll Department was not reviewing individuals receiving wage increases to determine if the additional 2% should be withheld.
- 2** *Recommendation:* The payroll system should be modified to withhold the additional 2% whenever regular compensation exceeds \$576.92 per week.
- 3** *Board Response:* The Board has notified the City payroll department of this finding and will be working closely with them to be certain the additional 2% is being withheld when required. Part of this work includes coding for automatic deductions whenever weekly pay exceeds \$576.92.
- 4** *Final Determination*
PERAC auditors will conduct a follow-up review in six (6) months to ensure appropriate action has been taken.

Key Points & Concepts

The Statement of Ledger Assets and Liabilities shows the value of the Quabbin Retirement System's assets and how these assets are invested over a three-year time period (Year ending December 31st).

1

Cash: Funds deposited in savings accounts, checking accounts, or money market accounts that represent 'on demand money' are known as cash. Each cash account must be identified individually in the ledger and trial balance. Each transfer of funds between cash accounts requires a journal entry.

2

Short Term Investments: Invested funds (e.g., U.S. Treasury Bills, Commercial Paper, Certificates of Deposit, Cooperative Shares, Savings and Loan Shares, Term Deposits)) that can be readily obtained within 30 days are considered Short-Term Investments.

3

Fixed Income Securities: Bonds are Fixed Income Securities. Effective January 1, 2000, fixed income securities are valued at market value. Gains or losses on sales of fixed income securities are calculated as the difference between the sale price and the most recent market value.

4

Equities: Investments in shares of a corporation (stocks) are equities.

5

Pooled Funds: Pooled Funds are investment vehicles such as mutual funds, commingled funds, group trusts, real estate funds, limited partnership funds, and alternative investments. The distinguishing feature of a pooled fund is that a number of retirement boards or investors contribute money to the fund. This contrasts with a separate account in which only one Retirement Board or investor contributes money.

6

PRIT Cash Fund/Core Fund: The Pension Reserve Investment Trust (PRIT) is an investment income fund administered by the Commonwealth of Massachusetts.

7

Accounts Receivable: Monies that are due the retirement system must be recorded as an account payable. Any transaction for a security that was sold prior to January 1st, with a settlement date after December 31st, should be recorded as an account receivable since the retirement system actually no longer owns this security on the transaction date. For city and town systems, any funds that have been appropriated for the current fiscal year but not received by December 31st should be considered a receivable. For county systems, appropriations are due on July 1st and January 1st. Any funds not received from the July 1st portion of the appropriation should be considered a receivable. If by December 31st, a retirement system has not received all reimbursements for billings that have been sent to other governmental units, a receivable must be recorded.

8

Accounts Payable: Monies that the retirement system owes must be recorded as an accounts payable. Any transaction of a security that was purchased prior to January 1st, with a settlement date after December 31st, should be recorded as accounts payable since the retirement system actually no longer owns this security on the transaction date. Administrative expenses and reimbursements to other systems received prior to January 1st are also accounts payable.

QUABBIN RETIREMENT SYSTEM

STATEMENT OF LEDGER ASSETS AND LIABILITIES

FOR THE THREE YEAR PERIOD BEGINNING JANUARY 1, 1997 AND ENDING DECEMBER 31, 1999

		For the Year Ending December 31,		
Assets		1999	1998	1997
5	Cash 1			
	Short Term Investments 2			
	Fixed Income Securities (at book value) 3			
	Equities 4			
	Pooled Short Term Funds			
	Pooled Domestic Equity Funds			
	Pooled International Equity Funds			
	Pooled Global Equity Funds			
	Pooled Domestic Fixed Income Funds			
	Pooled International Fixed Income Funds			
	Pooled Global Fixed Income Funds			
	Pooled Alternative Investment Funds			
	Pooled Real Estate Funds			
	Pooled Domestic Balanced Funds			
	Pooled International Balanced Funds			
	PRIT Cash Fund 6	145,448	1,675,438	
	PRIT Core Fund	28,310,905	23,134,830	21,554,258
	Interest Due and Accrued			
	Accounts Receivable 7	1,680,328	173,416	103,727
	Accounts Payable 8	(93,211)	(137,700)	(132)
Total		<u>\$30,043,469</u>	<u>\$24,845,984</u>	<u>\$21,657,853</u>
Fund Balances				
Annuity Savings Fund		\$6,633,013	\$6,277,962	\$5,963,377
Annuity Reserve Fund		2,654,806	2,545,032	2,375,673
Military Service Fund				
Pension Fund		1,914,422	1,804,399	29,508
Expense Fund				
Pension Reserve Fund		18,841,228	14,218,591	13,289,296
Total		<u>\$30,043,469</u>	<u>\$24,845,984</u>	<u>\$21,657,853</u>

Key Points & Concepts

The chart on the opposite page traces the movement of funds over the three-year audit period.

Each fund has a beginning balance. The fund balance may increase with the receipt of cash, interfund transfers may increase or decrease balances, and disbursements will decrease fund balances.

QUABBIN RETIREMENT SYSTEM

STATEMENT OF CHANGES IN FUND BALANCES

FOR THE THREE YEAR PERIOD BEGINNING JANUARY 1, 1997 AND ENDING DECEMBER 31, 1999

	Annuity Savings	Annuity Reserve Fund	Military Service Fund	Pension Fund	Pension Reserve Fund	Expense Fund	Total All Funds
Beginning Balance (1997)	\$5,749,014	\$2,165,874	\$0	\$535,961	\$10,016,808	\$34,050	\$18,501,707
Receipts	700,028	67,921	0	1,544,136	3,270,792	29,166	5,612,043
Interfund Transfers	(381,098)	379,403	0	0	1,695	0	0
Disbursements	<u>(104,567)</u>	<u>(237,525)</u>	<u>0</u>	<u>(2,050,589)</u>	<u>0</u>	<u>(63,215)</u>	<u>(2,455,896)</u>
Ending Balance (1997)	5,963,377	2,375,673	0	29,508	13,289,296	0	21,657,853
Receipts	782,236	70,440	0	1,757,529	3,055,990	74,773	5,740,968
Interfund Transfers	(351,731)	352,862	0	2,125,564	(2,126,695)	0	0
Disbursements	<u>(115,919)</u>	<u>(253,942)</u>	<u>0</u>	<u>(2,108,203)</u>	<u>0</u>	<u>(74,773)</u>	<u>(2,552,837)</u>
Ending Balance (1998)	6,277,962	2,545,032	0	1,804,399	14,218,591	0	24,845,984
Receipts	861,102	77,884	0	1,853,214	5,154,351	109,997	8,056,547
Interfund Transfers	(339,165)	340,587	0	530,291	(531,713)	0	(0)
Disbursements	<u>(166,886)</u>	<u>(308,698)</u>	<u>0</u>	<u>(2,273,481)</u>	<u>0</u>	<u>(109,997)</u>	<u>(2,859,062)</u>
Ending Balance (1999)	\$6,633,013	\$2,654,806	\$0	\$1,914,422	\$18,841,228	\$0	\$30,043,469

Key Points & Concepts

The Statement of Receipts on the opposite page defines, for the last three-year period, the origins of the Quabbin Retirement System's funds and income.

1

Annuity Savings Fund

This is the fund in which members' contributions are deposited. Active members contribute 5, 7, 8, or 9 percent of their gross regular compensation as well as 2% of gross regular compensation over \$30,000. Voluntary contributions, redeposits, and transfers to and from other systems are also accounted for in this fund.

Annuity Savings Fund accounts (4891, 4892 and 4893) must agree with the Supplementary Membership Schedule. The Supplementary Membership Schedule identifies, by member's name, yearly activity by category (transfers, refunds, interest, etc.). Beginning member balances must equal last year's ending member balances.

2

Annuity Reserve Fund

This is the fund to which a member's account (total accumulated deductions, including interest) are transferred upon retirement from the Annuity Savings Fund and Special Military Service Credit Fund. The annuity portions of retirement allowances are paid from this fund. Interest is credited monthly to this fund at the rate of 3 percent annually (which is 0.025 each month) on the previous month's balance.

3

Pension Fund

This fund contains specific amounts appropriated by the governmental units, as established by PERAC, to pay the pension portion of each retirement allowance.

4

Military Service Fund

The Special Military Service Credit Fund contains contributions and interest related to the creditable service earned by members who are serving in the Armed Forces while on military leave.

5

Expense Fund

This fund contains amounts transferred from investment income for the purposes of administering the retirement system (administration, legal, travel, etc).

6

Pension Reserve Fund

This fund contains amounts appropriated by the governmental units for the purposes of funding future retirement benefits. Excess interest earnings are also credited to this fund.

QUABBIN RETIREMENT SYSTEM

STATEMENT OF RECEIPTS

FOR THE THREE YEAR PERIOD BEGINNING JANUARY 1, 1997 AND ENDING DECEMBER 31, 1999

		For the Year Ending December 31,		
		1999	1998	1997
1	Annuity Savings Fund:			
	Members Deductions	\$679,429	\$601,293	\$530,877
	Transfers from other Systems	25,400	13,332	5,589
	Member Make Up Payments and Redeposits	25,060	28,001	26,576
	Investment Income Credited to Member Accounts	<u>131,213</u>	<u>139,610</u>	<u>136,986</u>
	Sub Total	<u>861,102</u>	<u>782,236</u>	<u>700,028</u>
2	Annuity Reserve Fund:			
	Investment Income Credited Annuity Reserve Fund	<u>77,884</u>	<u>70,440</u>	<u>67,921</u>
3	Pension Fund:			
	3 (8) (c) Reimbursements from Other Systems	21,006	43,587	9,661
	Received from Commonwealth for COLA and			
	Survivor Benefits	224,208	301,942	229,922
	Pension Fund Appropriation	<u>1,608,000</u>	<u>1,412,000</u>	<u>1,304,553</u>
	Sub Total	<u>1,853,214</u>	<u>1,757,529</u>	<u>1,544,136</u>
4	Military Service Fund:			
	Contribution Received from Municipality on Account			
	of Military Service			
	Investment Income Credited Military Service Fund			
	Sub Total	<u>0</u>	<u>0</u>	<u>0</u>
5	Expense Fund:			
	Expense Fund Appropriation			
	Investment Income Credited to Expense Fund	<u>109,997</u>	<u>74,773</u>	<u>29,166</u>
	Sub Total	<u>109,997</u>	<u>74,773</u>	<u>29,166</u>
6	Pension Reserve Fund:			
	Federal Grant Reimbursement	39,543	33,036	27,306
	Pension Reserve Appropriation			
	Interest Not Refunded	451	224	2,495
	Excess Investment Income	<u>5,114,357</u>	<u>3,022,730</u>	<u>3,240,991</u>
	Sub Total	<u>5,154,351</u>	<u>3,055,990</u>	<u>3,270,792</u>
Total Receipts		<u>\$8,056,547</u>	<u>\$5,740,968</u>	<u>\$5,612,043</u>

Key Points & Concepts

The Statement of Disbursements on the opposite page defines, for the last three-year period, disbursements made by the Quabbin Retirement System. A brief description of each major category is listed below.

1

Annuity Savings Fund

Funds are deducted from the Annuity Savings Fund when a member is not eligible for retirement and withdraws his/her funds or when a member transfers to another retirement system.

2

Annuity Reserve Fund

The Annuity Reserve Fund is the fund from which annuity payments are made. Such payments include the payment of the annuity portion of each retirement allowance, including interest, and refunds (balance of the member's annuity account) that are paid to Option B beneficiary(ies) upon a retiree's death.

3

Pension Fund

Disbursements made from the Pension Fund represent, for the most part, funds paid to retirees.

4

Military Service Fund

Disbursements are made from the Military Service Fund to the municipality for members who withdrew their funds.

5

Expense Fund

Retirement systems must be diligent when they account for expenses. Board Member stipends must not be booked as staff salaries (or visa versa). Travel expenses must not be lumped with administrative expenses. Expenses paid for travel must be fully documented. For further details about travel, please refer to PERAC Memorandum #15/2002, dated March 7, 2002, entitled 'Guidelines for Retirement Board Travel Supplemental Regulations.'

In all cases, invoices that are approved by Board Members should reference warrant numbers. The invoices must be retained. It is also a good idea to write a check number on each invoice, in case additional review is necessary.

QUABBIN RETIREMENT SYSTEM

STATEMENT OF DISBURSEMENTS

FOR THE THREE YEAR PERIOD BEGINNING JANUARY 1, 1997 AND ENDING DECEMBER 31, 1999

		For the Year Ending December 31,		
		1999	1998	1997
1	Annuity Savings Fund:			
	Refunds to Members	\$63,751	\$74,283	\$62,984
	Transfers to other Systems	<u>103,135</u>	<u>41,636</u>	<u>41,583</u>
	Sub Total	<u>166,886</u>	<u>115,919</u>	<u>104,567</u>
2	Annuity Reserve Fund:			
	Annuities Paid	271,675	246,430	231,667
	Option B Refunds	<u>37,023</u>	<u>7,513</u>	<u>5,858</u>
	Sub Total	<u>308,698</u>	<u>253,942</u>	<u>237,525</u>
3	Pension Fund:			
	Pensions Paid			
	Regular Pension Payments	1,418,634	1,279,949	1,295,536
	Survivorship Payments	106,884	100,722	101,344
	Ordinary Disability Payments	61,800	52,655	60,630
	Accidental Disability Payments	445,790	378,801	386,552
	Accidental Death Payments	116,121	81,138	83,341
	Section 101 Benefits	31,144	30,000	30,066
	3 (8) (c) Reimbursements to Other Systems	93,108	184,938	93,120
	State Reimbursable COLA's Paid	0	0	0
	Chapter 389 Beneficiary Increase Paid	<u>0</u>	<u>0</u>	<u>0</u>
	Sub Total	<u>2,273,481</u>	<u>2,108,203</u>	<u>2,050,589</u>
4	Military Service Fund:			
	Return to Municipality for Members Who Withdrew Their Funds			
5	Expense Fund:			
	Board Member Stipend	15,300	15,300	18,522
	Salaries	31,718	29,819	28,107
	Legal Expenses	1,785	3,112	4,136
	Medical Expenses			
	Travel Expenses	481	1,266	988
	Administrative Expenses	21,296	22,738	11,191
	Furniture and Equipment	3,087	2,538	271
	Management Fees	36,330		
	Consultant Fees			
	Custodial Fees			
	Sub Total	<u>109,997</u>	<u>74,773</u>	<u>63,215</u>
Total Disbursements		<u>\$2,859,062</u>	<u>\$2,552,837</u>	<u>\$2,455,896</u>

Key Points & Concepts

The Quabbin Retirement System's Investment Income Schedule identifies investment activity for the three-year period. The investment activity represents activity for the year from January 1st to December 31st, for the year ending December 31st.

The total investment income plus gains on investments, less losses on investments, and monies taken from funds must equal Excess Income to the Pension Reserve Fund. This value is the same value that must be shown under Excess Investment Income appearing on the Statement of Receipts (refer to page 9).

Income Required is interest that the retirement system is required to give to individual member account balances for years preceding the current calendar year. Interest must be calculated for each fund.

QUABBIN RETIREMENT SYSTEM

INVESTMENT INCOME

FOR THE THREE YEAR PERIOD BEGINNING JANUARY 1, 1997 AND ENDING DECEMBER 31, 1999

	For the Year Ending December 31,		
	1999	1998	1997
Investment Income Received From:			
Cash	\$686	\$601	\$662
Short Term Investments			
Fixed Income			
Equities			
Pooled or Mutual Funds	<u>2,600,396</u>	<u>3,306,952</u>	<u>3,474,402</u>
Total Investment Income	<u>2,601,082</u>	<u>3,307,553</u>	<u>3,475,064</u>
Plus:			
Increase in Amortization of Fixed Income Securities			
Realized Gains	701,063		
Unrealized Gains	2,870,413		
Increase Due and Accrued on Fixed Income Securities - Current Year			
Sub Total	<u>3,571,475</u>	<u>0</u>	<u>0</u>
Less:			
Decrease in Amortization of Fixed Income Securities			
Realized Loss	(739,107)		
Unrealized Loss			
Paid Accrued Interest on Fixed Income Securities			
Management Fees Paid			
Consultant Fees Paid			
Custodial Fees Paid			
Interest Due and Accrued on Fixed Income Securities - Prior Year			
Sub Total	<u>(739,107)</u>	<u>0</u>	<u>0</u>
Net Investment Income	<u>5,433,451</u>	<u>3,307,553</u>	<u>3,475,064</u>
Income Required:			
Annuity Savings Fund	131,213	139,610	136,986
Annuity Reserve Fund	77,884	70,440	67,921
Military Service Fund			
Expense Fund	<u>109,997</u>	<u>74,773</u>	<u>29,166</u>
Total Income Required	<u>319,094</u>	<u>284,823</u>	<u>234,073</u>
Net Investment Income	<u>5,433,451</u>	<u>3,307,553</u>	<u>3,475,064</u>
Less: Total Income Required	<u>319,094</u>	<u>284,823</u>	<u>234,073</u>
Excess Income to the Pension			
Reserve Fund	<u>\$5,114,357</u>	<u>\$3,022,730</u>	<u>\$3,240,991</u>

Key Points & Concepts

The 'Statement of Allocation of Investments' on the opposite page helps readers understand how the Quabbin Retirement System has allocated its monies among various investment categories. The schedule also identifies the rate of return for Quabbin's investments. For the year ending December 31, 1999, the rate of return was 23.24%

Most of Quabbin's funds (99.49%) are invested in the PRIT Core Fund where the allowable percentage is 100%. Cash and Short Term Investments also have an allowed percentage rate of 100%.

Please note that if the Quabbin Retirement System wanted to invest 50% of their funds in Equities, the Quabbin Retirement Board would have to submit a 'Supplemental Regulation' for PERAC's approval of their desire to supersede the 40% maximum stipulated in 840 CMR 20.03 (eliminated 7/98).

Please refer to page 16 for further information about supplemental regulations.

The allocation of total assets shown on the opposite page is not necessarily a typical example. Since each retirement system has its own investment strategy, investment allocations vary from system to system.

QUABBIN RETIREMENT SYSTEM

STATEMENT OF ALLOCATION OF INVESTMENTS OWNED

(PERCENTAGES BY CATEGORY) FOR THE THREE YEAR PERIOD ENDING DECEMBER 31, 1999

	Book Value*	Market Value	Percentage of Total Assets	Percentage Allowed*
Cash			0.00%	100
Short Term			0.00%	100
Fixed Income			0.00%	40 - 80
Equities			0.00%	40
Pooled Short Term Funds			0.00%	
Pooled Domestic Equity Funds			0.00%	
Pooled International Equity Funds			0.00%	
Pooled Global Equity Funds			0.00%	
Pooled Domestic Fixed Income Funds			0.00%	
Pooled International Fixed Income Funds			0.00%	
Pooled Global Fixed Income Funds			0.00%	
Pooled Alternative Investment Funds			0.00%	
Pooled Real Estate Funds			0.00%	
Pooled Domestic Balanced Funds			0.00%	
Pooled International Balanced Funds			0.00%	
PRIT Cash Fund		145,448	0.51%	
PRIT Core Fund		<u>28,310,905</u>	<u>99.49%</u>	100
Grand Totals	\$0	\$28,456,352	<u>100.00%</u>	

* The book value differs from the market value for individually owned Fixed Income Securities which are valued at amortized cost which is the original cost of the investment plus or minus any bond discount or bond premium calculated ratably to maturity. All other investments are reflected at their quoted market value.

For the year ending December 31, 1999, the rate of return for the investments of the Quabbin Retirement System was 23.24%. For the five year period ending December 31, 1999, the rate of return for the investments of the Quabbin Retirement System averaged 19.43%. For the 15-year period ending December 31, 1999, since PERAC began evaluating the returns of the retirement systems, the rate of return of the investments of the Quabbin Retirement System was 13.46%.

Key Points & Concepts

A Retirement Board may ask PERAC to approve a new supplementary regulation. A Retirement Board may also request that PERAC approve a regulation that differs from regulations already promulgated. This policy enables Retirement Boards to customize regulations to better fit their own needs. PERAC reviews each supplementary regulation request on a case-by-case basis.

An example of a supplementary regulation request is for a Board to request authorization of an investment of 45% of total assets in stocks rather than the 40% stipulated by regulation. The Board might state that this request is being made so as to achieve an investment objective determined by the Retirement Board.

Upon PERAC's approval of the change, PERAC will issue a letter to the Retirement Board authorizing them to make the changes. As you will note, on the opposing page, the Quabbin Retirement System has approval to invest 45% in stocks, as of December 1, 1999 (the date of the supplementary regulation's approval).

QUABBIN RETIREMENT SYSTEM

SUPPLEMENTARY INVESTMENT REGULATIONS

FOR THE THREE YEAR PERIOD ENDING DECEMBER 31, 1999

December 1, 1999

Equity investments shall not exceed 45% of the portfolio valued at market, including international equities which shall not exceed 10% of the portfolio valued at market.

Key Points & Concepts

Notes 1 and 2 (pages 19-23) focus on the system and significant accounting policies as stipulated under Chapter 32, the governing statute for public retirement systems and pensions, of the Massachusetts General Laws.

Notes 1 and 2 include, but are not limited to, the following provisions:

- The maximum allowable retirement is 80% of a member's highest three-year average annual rate of regular compensation.
- Members become vested after 10 years of creditable service.
- A superannuation allowance may be received after twenty years of service or upon reaching age 55 with ten years of service.
- A retirement allowance consists of two parts: an annuity and a pension.
- Active members contribute 5, 7, 8 or 9% of their regular gross compensation.
- Members joining after January 1, 1979 must contribute an additional 2% on regular compensation earned over \$30,000.
- Administrative expenses are funded through investment income.
- Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance.
- Retirement accounting records are maintained on a calendar year basis in accordance with the standards and procedures established by PERAC's Executive Director.

QUABBIN RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS

FOR THE THREE YEAR PERIOD ENDING DECEMBER 31, 1999

Note I - The System

The plan is a contributory defined benefit plan covering all Quabbin Retirement System member unit employees deemed eligible by the retirement board, with the exception of school department employees who serve in a teaching capacity. The Teachers' Retirement Board administers the pensions of such school employees.

Instituted in 1937, the system is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws. Membership in the plan is mandatory immediately upon the commencement of employment for all permanent, full-time employees.

The system provides for retirement allowance benefits up to a maximum of 80% of a member's highest three year average annual rate of regular compensation. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of twenty years of service or upon reaching the age of 55 with ten years of service. Normal retirement for most employees occurs at age 65 (for certain hazardous duty and public safety positions, normal retirement is at age 55).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and a portion of the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension. The average retirement benefit is approximately 75 - 85% pension and 15 - 25% annuity.

Active members contribute either 5, 7, 8, or 9% of their gross regular compensation. Members joining the retirement system after January 1, 1979 must contribute an additional 2% on regular compensation earned at a rate in excess of \$30,000. The percentage rate is keyed to the date upon which an employee's membership commences. These deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the Executive Director of PERAC according to statute. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustment granted between 1981 and 1997 and any increase in other benefits imposed by state law during that period are borne by the state.

The pension portion of any retirement benefit is paid from the Pension Fund of the system. The governmental unit employing the member must annually

QUABBIN RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

FOR THE THREE YEAR PERIOD ENDING DECEMBER 31, 1999

appropriate and contribute the amount of current year pension payments as indicated on the most recent funding schedule as approved by PERAC's Actuary. Until recently, retirement systems were paying only the actual retirement benefits that were due each year. Systems had no statutory authorization to put aside any money for the future benefits of employees who are now working. Large unfunded liabilities resulted from operating upon this pay-as-you-go basis. In 1977, legislation authorized local governments to appropriate funds to meet future pension obligations.

In 1983, additional legislation was passed requiring the transfer of investment earnings (in excess of the amount credited to member accounts) into the Pension Reserve Fund. These initiatives have significantly reduced the rate of growth of the retirement systems' unfunded liabilities, and in some systems have actually reduced such liability.

Administrative expenses are funded through investment income of the system.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent upon several factors including: whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veteran's status, and group classification.

Employees who resign from service and who are not eligible to receive a retirement allowance or are under the age of 55 are entitled to request a refund of their accumulated total deductions. In addition, depending upon the number of years of creditable service, such employees are entitled to receive either zero (0%) percent, fifty (50%) percent, or one hundred (100%) percent of the regular interest which has accrued upon those deductions. Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

Note 2 - Significant Accounting Policies

The accounting records of the system are maintained on a calendar year basis in accordance with the standards and procedures established by the Executive Director of Public Employee Retirement Administration Commission.

The Annuity Savings Fund is the fund in which members' contributions are deposited. Active members contribute either 5, 7, 8, or 9% of their gross regular compensation. Voluntary contributions, redeposits, and transfers to and from other systems, are also accounted for in this fund. Members' contributions to the

QUABBIN RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

FOR THE THREE YEAR PERIOD ENDING DECEMBER 31, 1999

fund earn interest at a rate determined by PERAC. Interest for some members who withdraw with less than ten years of service is transferred to the Pension Reserve Fund. Upon retirement, members' contributions and interest are transferred to the Annuity Reserve Fund. Dormant account balances must be transferred to the Pension Reserve Fund after a period of ten years of inactivity.

The Annuity Reserve Fund is the fund to which a member's account is transferred upon retirement from the Annuity Savings Fund and Special Military Service Credit Fund. The annuity portion of the retirement allowance is paid from this fund. Interest is credited monthly to this fund at the rate of 3% annually on the previous month's balance.

The Special Military Service Credit Fund contains contributions and interest for members while on a military leave for service in the Armed Forces who will receive creditable service for the period of that leave.

The Expense Fund contains amounts transferred from investment income for the purposes of administering the retirement system.

The Pension Fund contains the amounts appropriated by the governmental units as established by PERAC to pay the pension portion of each retirement allowance.

The Pension Reserve Fund contains amounts appropriated by the governmental units for the purposes of funding future retirement benefits. Any profit or loss realized on the sale or maturity of any investment or on the unrealized gain of a market valued investment as of the valuation date is credited to the Pension Reserve Fund. Additionally, any investment income in excess of the amount required to credit interest to the Annuity Savings Fund, Annuity Reserve Fund, and Special Military Service Credit Fund is credited to this Reserve account.

The Investment Income Account is credited all income derived from interest and dividends of invested funds. At the end of the year the interest credited to the Annuity Savings Fund, Annuity Reserve Fund, Expense Fund, and Special Military Service Credit Fund is distributed from this account and the remaining balance is transferred to the Pension Reserve Fund.

Key Points & Concepts

Note 3 - Supplementary Membership Regulations

A retirement board may ask PERAC to approve supplementary membership regulations. A retirement board may also request that PERAC approve a regulation that differs from regulations already promulgated. This policy permits retirement boards to customize regulations to better fit their own needs. PERAC reviews each supplementary regulation request on a case-by-case basis.

An example of a typical supplementary membership regulation can be seen under December 31, 1998 on the facing page.

Note 4 - Administration of the System

As seen in the lower portion of the facing page, the five person Retirement Board is identified by position, name, and term expiration date. Please note that the Ex Officio Member and one Appointed Member have indefinite terms.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

FOR THE THREE YEAR PERIOD ENDING DECEMBER 31, 1999

Note 3 - Supplementary Membership Regulations

The Quabbin Retirement System submitted the following supplementary membership regulations, which were approved by PERAC on:

January 10, 1996

Buy-Backs: Any member who has been incorrectly assessed, had deductions omitted in error or excluded from membership in the retirement system due to no fault of his own, may remit payments to the Board in order to correct the error and shall be credited with all creditable service, if any, associated with such a payment. Such payment shall be interest free for a period not to exceed six months from date of first notification.

December 31, 1998

Creditable Service: Any member who desires to establish credit for part-time service before becoming a member must petition the Board for such credit. Employees must have payroll evidence to support and verify that such member had prior public employment.

For the purposes of computing partial or pro rata membership service, full time credit shall be considered by the Board to be two hundred sixty (260) work days and seven and one half (7 1/2) hours per day, or nineteen hundred and fifty (1950) hours per annum. Creditable service for part-time employees who do not work a full year shall be prorated as it bears against full time service for that particular position.

Note 4 - Administration of the System

The system is administered by a five person Board of Retirement consisting of the City Auditor who shall be a member ex officio, a second member appointed by the governing authority, a third and fourth member who shall be elected by the members in or retired from the service of such system, and a fifth member appointed by the other four board members.

Ex Officio Member:	Charles Sullivan	
Elected Member:	Edward McHugh	Term Expires: 06/30/02
Elected Member:	Donald Gardner	Term Expires: 06/30/02
Appointed Member:	Joseph Fay	Term Expires: Indefinite
Appointed Member:	Priscilla Johnson	Term Expires: 01/01/03

Key Points & Concepts

Included among the Notes on the opposite page are the following:

- Board Members must meet at least once a month.
- The Board must maintain a written record of its proceedings.
- The Board must develop an annual budget.
- The Board is responsible for investing the system's funds.
- Board Members and employees must be bonded.
All Board Members and retirement system staff shall be bonded in an amount sufficient to provide reasonable protection against losses due to dishonesty and fraud, breach of fiduciary responsibilities, and negligent acts, errors or omissions in plan administration. Each shall be bonded for no less than 10% of the amount of the fund or \$500,000 (840 CMR 17.01).

Note 5 - Actuarial Valuation and Assumptions

The chart on the opposite page summarizes the most important actuarial statistics from the most recent actuarial valuation of the system. The Quabbin Retirement System must have **\$42,281,531** in savings to pay for all future retirees. Since they have system assets of **\$30,043,470** (71% of required savings), they face an unfunded actuarial liability of **\$12,238,061**.

The Quabbin Retirement System must become fully funded by 2028. Adopting and adhering to an appropriately structured funding schedule will accomplish this objective.

A more detailed explanation of actuarial valuations and assumptions can be found in the PERAC booklet entitled, "Understanding an Actuarial Valuation Report."

QUABBIN RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

FOR THE THREE YEAR PERIOD ENDING DECEMBER 31, 1999

The Board Members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the system. The Board must annually file a financial statement of condition for the system with the Executive Director of PERAC.

The investment of the system's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board and are then submitted to the PERAC Actuary for verification prior to payment. All expenses incurred by the system must be approved by at least two members of the Board.

The following Retirement Board Members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer - Custodian:	➤	
Ex Officio Member:	➤	\$30,000,000
Elected Member:	➤	3 Different Companies
Appointed Member:	➤	MACRS Policy
Staff Employee:	➤	

Note 5 - Actuarial Valuation and Assumptions

The most recent actuarial valuation of the system was prepared by the PricewaterhouseCoopers as of January 1, 2000.

The actuarial liability for active members was	\$21,083,764
The actuarial liability for inactive members was	150,047
The actuarial liability for retired members was	<u>21,047,720</u>
The total actuarial liability was	42,281,531
System assets as of that date were	<u>30,043,470</u>
The unfunded actuarial liability was	<u>\$12,238,061</u>

The ratio of system's assets to total actuarial liability was	71.1%
As of that date the total covered employee payroll was	\$9,342,309

The normal cost for employees on that date was	7.00% of payroll
The normal cost for the employer was	8.00% of payroll

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	8.00% per annum
Rate of Salary Increase:	5.50% per annum

Key Points & Concepts

The Government Accounting Standards Board (GASB) established GASB Statement Number 25, relating to Financial Reporting and Accounting for pension plans. The objective of this GASB disclosure is to establish a uniform approach to pension financial statements.

QUABBIN RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
FOR THE THREE YEAR PERIOD ENDING DECEMBER 31, 1999

GASB Statement No. 25, Disclosure Information as of January 1, 2000

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Cov. Payroll ((b-a)/c)
1/1/2000	\$30,043,470	\$42,281,531	\$12,238,061	71.1%	\$9,342,309	131.00%
1/1/1999	\$24,845,984	\$39,804,925	\$14,958,941	62.4%	\$8,568,299	174.58%
1/1/1998	\$21,657,853	\$36,179,849	\$14,521,996	59.9%	\$7,411,290	195.94%

Key Points & Concepts

The Membership Exhibit on the opposite page contains ‘headcount’ information and ‘pension payment’ information for the past 10 years for the Quabbin Retirement System.

Retirement Board Members and staff can use this 10-year historical record to predict future pension needs. For example, based on these numbers, the retirement system can conclude that on average, 3 percent of their active members will retire each year.

QUABBIN RETIREMENT SYSTEM


NOTES TO FINANCIAL STATEMENTS (CONTINUED)

FOR THE THREE YEAR PERIOD ENDING DECEMBER 31, 1999

Note 6 - Membership Exhibit

Retirement in Past Years	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Superannuation	10	10	9	7	9	4	5	10	7	9
Ordinary Disability	0	1	1	2	0	0	0	1	1	0
Accidental Disability	0	0	0	0	0	2	2	2	4	3
Total Retirements	10	11	10	9	9	6	7	13	12	12
Total Retirees, Beneficiaries and Survivors	*	*	*	*	208	212	217	222	225	224
Total Active Members	286	280	258	256	274	271	273	267	347	394
Pension Payments										
Superannuation	\$697,008	\$792,816	\$913,936	\$975,420	\$1,007,056	\$1,115,692	\$1,125,625	\$1,295,536	\$1,279,949	\$1,418,634
Survivor/Beneficiary Payments	83,302	76,181	84,742	81,015	90,530	97,407	98,988	101,344	100,722	106,884
Ordinary Disability	49,586	54,940	49,725	49,725	60,918	61,757	62,040	60,630	52,655	61,800
Accidental Disability	258,898	242,781	251,369	260,556	278,676	306,398	392,792	386,552	378,801	445,790
Other	77,334	115,211	116,989	166,686	164,911	180,995	261,672	113,406	111,138	147,265
Total Payments for Year	<u>\$1,166,128</u>	<u>\$1,281,929</u>	<u>\$1,416,761</u>	<u>\$1,533,402</u>	<u>\$1,602,091</u>	<u>\$1,762,249</u>	<u>\$1,941,117</u>	<u>\$1,957,469</u>	<u>\$1,923,265</u>	<u>\$2,180,373</u>

* Figures unavailable



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